REMARKS

This application has been reviewed in light of the Office Action dated October 7, 2003. Claims 1, 5, 6, 8, 10-15, 17, 21, 22, 24, 26-33, 35-41, and 54-60 are presented for examination, of which Claims 1and 17 are in independent form. Claims 2-4, 7, 9, 16, 18-20, 23, 25, 34, and 42-53 have been cancelled, without prejudice or disclaimer of the subject matter presented therein, and new Claims 57-60 have been added to provide Applicant with a more complete scope of protection. Claims 1 and 17 have been amended to define Applicant's invention more clearly, and Claims 5, 6, 8, 10-15, 17, 21, 22, 24, 26-33, 35-41, and 54-56 have been amended as to formal matters. Favorable reconsideration is requested.

The Office Action states that Claims 1-36 and 54-56 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,324,178 (Lo et al.) in view of U.S. Patent No. 6,233,611 (Ludtke et al.); and that Claims 37-53 are rejected under § 103(a) as being unpatentable over Lo et al. in view of Ludtke et al., and further in view of U.S. Patent No. 6,064,772 (Tanno et al.). Cancellation of Claims 2-4, 7, 9, 16, 18-20, 23, 25, 34, and 42-53 renders their rejections moot. Applicant respectfully traverses the rejections and submits that independent Claims 1 and 17, together with the claims dependent therefrom, are patentably distinct from the cited prior art for at least the following reasons.

An aspect of the present invention set forth in Claim 1 is directed to a method of communicating digital information of different data formats via a plurality of communication channels shared between several communication units. The method includes a reception operation, a determination operation, a reformat operation, and a transmission operation. In the

reception operation, digital information having a first format and transmitted via a first communication channel is received from a communication unit that uses the first format. In the determination operation, at least a need to reformat received digital information having the first format is determined according to at least one characteristic of the plurality of communication channels for communicating between the several communication units. In the reformat operation, the received digital information having the first format is reformatted to digital information having a second format different from the first format, if a need is determined. In the transmission operation, the digital information having the second format is transmitted via a second channel. The digital information having the second format and transmitted via the second channel is received by a communication unit that uses the second format.

Please notice that the essential subject matter of Claim 3, which has been canceled, has been incorporated into Claim 1. One of the notable features of Claim 1 is that the determination operation determines a need to reformat digital information having the first format according to at least one characteristic of the plurality of communication channels for communicating between the several communication units, and the reformat operation performs the reformatting if a need is determined.

Lo et al. relates to a method for transferring data between domains of differing data formats. As understood by Applicant, Lo et al. discloses that the method eliminates the need to copy a data payload section 324 of a received data packet from one memory space to another memory space within a bridge device coupled between first and second communication domains.

Apparently, when a data packet is to be transferred from the first

communication domain to the second communication domain, a new header section 330 of the data packet is constructed within a data packet format of the second communication domain by a bridge circuit 220. (See, for example, column 11, lines 44-46; column 9, lines 10-14; and Fig. 5.) A new data packet for the second communication domain is assembled with the new header section 330 and an unchanged data payload 324. After assembling the new data packet, data within the data payload 324 is automatically accessed and broadcast over the second communication domain (bus). (See, for example, column 9, lines 18-25.)

According to Applicant's understanding, Lo et al. fails to disclose or suggest conditions for reformatting digital information received within the bridge circuit 220 and, in particular, fails to disclose or suggest determining a need to reformat received digital information having a first format according a characteristic of a plurality of communication channels for communicating between several communication units.

Ludtke et al. relates to a media manager system that manages data flow and data conversion between devices in a network. As understood by Applicant, Ludtke et al. discloses that if source and destination devices involve different data formats, the system will handle automatic or requested data translation using a data format manager 68. (See, for example, column 10, lines 61-66.) In particular, the system analyzes the data formats for the source and the destination nodes in order to determine if a conversion is necessary. (See, for example, column 3, lines 21-35; and column 11, lines 45-51.)

Applicant submits, however, that Ludtke et al. fails to disclose or suggest that a condition for performing a conversion takes into account at least one characteristic of a plurality

of communication channels for communicating between several communication units.

Applicant submits that a combination of Lo et al. and Ludtke et al., assuming such combination would even be permissible, would fail to teach or suggest a method of communicating digital information of different data formats via a plurality of communication channels shared between several communication units, wherein the method includes "a determination operation of determining at least a need to reformat received digital information having the first format according to at least one characteristic of the plurality of communication channels for communicating between the several communication units," and "a reformat operation of reformatting the received digital information having the first format to digital information having a second format different from the first format, if a need is determined," as recited in Claim 1.

As discussed above, the cited references are understood to disclose that a conversion of data is made automatically or according to data formats for source and destination devices. The cited references are believed to be silent regarding determining a need to reformat digital information according to a characteristic of a plurality of communication channels. Accordingly, Applicant submits that Claim 1 is patentable over the cited art, and respectfully requests withdrawal of the rejection under 35 U.S.C. § 103(a).

Independent Claim 17 includes determination and reformat features similar to those of Claim 1 and therefore is believed to be patentable for at least the above reasons. Additionally, the other claims in this application depend from either Claim 1 or Claim 17, and therefore also are submitted to be patentable for at least the same reasons. Because each

dependent claim also is deemed to define an additional aspect of the invention, individual consideration or reconsideration, as the case may be, of the patentability of each claim on its own merits is respectfully requested.

In view of the foregoing amendments and remarks, Applicant respectfully requests favorable reconsideration and early passage to issue of the present application.

CONCLUSION

Applicant's undersigned attorney may be reached in our New York Office by telephone at (212) 218-2100. All correspondence should continue to be directed to our address listed below.

Respectfully submitted,

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